and K. Hagopian



CONTENTS OF VOLUME 140

Vol. 140B, No. 1

Appreciation list In Appreciation Review L.A. Lambert, H. Perri and T.J. Meehan 11 Evolution of duplications in the transferrin family of proteins General papers J. Bembenek, H. Sehadova, N. Ichihara 27 Day/night fluctuations in melatonin content, arylalkylamine and M. Takeda N-acetyltransferase activity and NAT mRNA expression in the CNS, peripheral tissues and hemolymph of the cockroach, Periplaneta americana M. Zmojdzian, D. Dziewulska-Szwajkowska 37 Localization of chicken muscle FBPase in cardiomyocyte nuclei and A. Dzugaj Y. Hitomi, T. Kizaki, S. Watanabe, G. Matsumura, 45 Seven skeletal muscles rich in slow muscle fibers may function to Y. Fujioka, S. Haga, T. Izawa, N. Taniguchi and sustain neutral position in the rodent hindlimb H. Ohno U.O. de Oliveira, A.S. da Rosa Araújo, A. Belló-Klein, Effects of environmental anoxia and different periods of 51 R.S.M. da Silva and L.C. Kucharski reoxygenation on oxidative balance in gills of the estuarine crab Chasmagnathus granulata M.B. Freitas, C.B.C. Passos, R.B. Vasconcelos and Effects of short-term fasting on energy reserves of vampire bats E.C. Pinheiro (Desmodus rotundus) M. Salem, J. Nath, C.E. Rexroad, J. Killefer and Identification and molecular characterization of the rainbow trout J. Yao calpains (Capn1 and Capn2): their expression in muscle wasting during starvation S.A. Mohamed, A.S. Fahmy and T.M. Mohamed Carbohydrases in camel (Camelus dromedarius) pancreas. Purification and characterization of glucoamylase C. Barata, J.C. Navarro, I. Varo, M.C. Riva, 81 Changes in antioxidant enzyme activities, fatty acid composition S. Arun and C. Porte and lipid peroxidation in Daphnia magna during the aging process F.J. Castillo-Yáñez, R. Pacheco-Aguilar 91 Isolation and characterization of trypsin from pyloric caeca of F.L. García-Carreño and Monterey sardine Sardinops sagax caerulea M.d.l.A. Navarrete-Del Toro Influence of mitochondrial membrane fatty acid composition on J.J. Ramsey, M.-E. Harper, S.J. Humble, 99 E.K. Koomson, J.J. Ram, L. Bevilacqua proton leak and H2O2 production in liver

S.D. Aird	109	Taxonomic distribution and quantitative analysis of free purine and pyrimidine nucleosides in snake venoms
Y. Bao, Y. Yamano and I. Morishima	127	A novel lebocin-like gene from eri-silkworm, Samia cynthia ricini, that does not encode the antibacterial peptide lebocin
T. Kurokawa, S. Uji and T. Suzuki	133	Identification of pepsinogen gene in the genome of stomachless fish, <i>Takifugu rubripes</i>
A. Krawczenko, L. Ciszak and M. Malicka-Blaszkiewicz	141	Carp liver DNase—isolation, further characterization and interaction with endogenous actin
A. Setini, F. Pierucci, O. Senatori and A. Nicotra	153	Molecular characterization of monoamine oxidase in zebrafish (Danio rerio)
E.B. Sorensen and P.W. Mesner Jr.	163	IgH-2 cells: a reptilian model for apoptotic studies
	I	Instructions to Authors
	Vol. 14	0B, No. 2
General papers		
GF. Qiu, K. Yamano and T. Unuma	171	Cathepsin C transcripts are differentially expressed in the final stages of oocyte maturation in kuruma prawn <i>Marsupenaeus japonicus</i>
G.T. Seaborn, M.K. Moore and G.H. Balazs	183	Depot fatty acid composition in immature green turtles ($Chelonia\ mydas$) residing at two near-shore foraging areas in the Hawaiian Islands
T. Minamoto and I. Shimizu	197	Molecular cloning of cone opsin genes and their expression in the retina of a smelt, Ayu (<i>Plecoglossus altivelis</i> , Teleostei)
M. Nakamura and Y. Tanigawa	207	Noncovalent interaction of MNSFbeta, a ubiquitin-like protein, with histone 2A
L.F. Jackson, S.D. McCormick, S.S. Madsen, P. Swanson and C.V. Sullivan	211	Osmoregulatory effects of hypophysectomy and homologous prolactin replacement in hybrid striped bass
S. Antonopoulou, T. Nomikos, A. Oikonomou, A. Kyriacou, M. Andriotis, E. Fragopoulou and A. Pantazidou	219	Characterization of bioactive glycolipids from Scytonema julianum (cyanobacteria)
M. Guppy, S. Brunner and M. Buchanan	233	Metabolic depression: a response of cancer cells to hypoxia?
R. Rosa, R. Calado, A.M. Andrade, L. Narciso and M.L. Nunes	241	Changes in amino acids and lipids during embryogenesis of European lobster, <i>Homarus gammarus</i> (Crustacea: Decapoda)
M. Johnston, D. Johnston and A. Richardson	251	Digestive capabilities reflect the major food sources in three species of talitrid amphipods

G.L. Skea, D.O. Mountfort and K.D. Clements 259 Gut carbohydrases from the New Zealand marine herbivorous fishes Kyphosus sydneyanus (Kyphosidae), Aplodactylus arctidens (Aplodactylidae) and Odax pullus (Labridae) R. Ahmad and A. Hasnain Ontogenetic changes and developmental adjustments in lactate dehydrogenase isozymes of an obligate air-breathing fish Channa punctatus during deprivation of air access N. Artagaveytia, J.-M. Elalouf, C. de Rouffignac, 279 Expression of urea transporter (UT-A) mRNA in papilla and pelvic R. Boivin and A. Cirio epithelium of kidney in normal and low protein fed sheep N. Gueguen, L. Lefaucheur, M. Fillaut, A. Vincent 287 Control of skeletal muscle mitochondria respiration by adenine nucleotides: differential effect of ADP and ATP according to and P. Herpin muscle contractile type in pigs P.M. Chamberlain and H.L.J. Black Fatty acid compositions of Collembola: unusually high proportions of C20 polyunsaturated fatty acids in a terrestrial invertebrate V. Karacaoğlan and I. Özer 300 Steady-state kinetic properties of sorbitol dehydrogenase from chicken liver A.d.P.G. Gomes, S.C. Dias, C. Bloch Jr., F.R. Melo, 313 Toxicity to cotton boll weevil Anthonomus grandis of a trypsin J.R. Furtado Jr., R.G. Monnerat, M.F. Grossi-de-Sá inhibitor from chickpea seeds and O.L. Franco A.E. Głowacka, E. Podstawka, M.H. Szczęsna-Antczak, 321 Kinetic and molecular properties of Bacillus subtilis IBTC-3 H. Kalinowska and T. Antczak subtilisin S. Kirchner, P. Seixas, S. Kaushik and S. Panserat Effects of low protein intake on extra-hepatic gluconeogenic enzyme expression and peripheral glucose phosphorylation in rainbow trout (Oncorhynchus mykiss) Erratum M. Ohkubo, K. Miyagawa, K. Osatomi, K. Hara, 341 Erratum to "Purification and characterization of myofibril-bound Y. Nozaki and T. Ishihara serine protease from lizard fish (Saurida undosquamis) muscle" [Comp. Biochem. Physiol. 137B, 139-150] Instructions to Authors Vol. 140B, No. 3 General papers A.R. Thomas, V. Oosthuizen and R.J. Naudé 343 Differential effects of detergents, fatty acids, cations and heating on ostrich skeletal muscle 20S proteasome M.G. Tingbø, S.O. Kolset, R. Ofstad, G. Enersen 349 Sulfated glycosaminoglycans in the extracellular matrix of muscle and K.O. Hannesson tissue in Atlantic cod (Gadus morhua) and Spotted wolffish

(Anarhichas minor)

F. Trischitta, M.G. Denaro and C. Faggio	359	Cell volume regulation following hypotonic stress in the intestine of the eel, $Anguilla$ anguilla, is Ca^{2+} -dependent
M.G.A. Oliveira, S.G. De Simone, L.P. Xavier and R.N.C. Guedes	369	Partial purification and characterization of digestive trypsin-like proteases from the velvet bean caterpillar, <i>Anticarsia gemmatalis</i>
R.F. Lee, A. Walker and D.J. Reish	381	Characterization of lipovitellin in eggs of the polychaete Neanthes arenaceodentata
C. Mizuta, K. Tanaka and T. Suzuki	387	Isolation, characterization, and cDNA-derived amino acid sequence of glycocyamine kinase from the tropical marine worm <i>Namalycastis</i> sp.
H. Nozawa, T. Mori, M. Kimura and N. Seki	395	Characterization of a transglutaminase from scallop hemocyte and identification of its intracellular substrates
J.P. Zappulla, A. Angers, D. Barbas, V.F. Castellucci and L. DesGroseillers	403	A novel actin isoform is expressed in the ovotestis of Aplysia californica
L. Comoglio, L. Smolko and O. Amin	411	Effects of starvation on oxygen consumption, ammonia excretion and biochemical composition of the hepatopancreas on adult males of the False Southern King crab <i>Paralomis granulosa</i> (Crustacea, Decapoda)
M.G. Sarower, S. Okada and H. Abe	417	Catalytic and structural characteristics of carp hepatopancreas D-amino acid oxidase expressed in <i>Escherichia coli</i>
J.H. Han, K.S. Lee, J. Li, I. Kim, Y.H. Je, D.H. Kim, H.D. Sohn and B.R. Jin	427	Cloning and expression of a fat body-specific chitinase cDNA from the spider, <i>Araneus ventricosus</i>
H.M.W. Økland, I.S. Stoknes, J.F. Remme, M. Kjerstad and M. Synnes	437	Proximate composition, fatty acid and lipid class composition of the muscle from deep-sea teleosts and elasmobranchs
H.J. Yuasa and T. Suzuki	445	Do molluscs possess indoleamine 2,3-dioxygenase?
B.E. Hasek and D.L. Felder	455	Biochemical composition of ovary, embryo, and hepatopancreas in the grapsoid crabs <i>Armases cinereum</i> and <i>Sesarma</i> nr. reticulatum (Crustacea, Decapoda)
M.H. Robinson, L.E. Twigg, S.H. Wheeler and G.R. Martin	465	Effect of the anticoagulant, pindone, on the breeding performance and survival of merino sheep, <i>Ovis aries</i>
N. Kan-no, N. Endo, S. Moriyama, E. Nagahisa and M. Sato	475	The amino acid sequence of tauropine dehydrogenase from the polychaete Arabella iricolor
Ki. Nagai, K. Tadano-Aritomi, N. Iida-Tanaka, H. Yoshizawa and I. Ishizuka	487	Metabolism of sulfolipids in isolated renal tubules from rat
R.A. Scott, R.H. Wilson, W.H. Goodwin, C.N. Moran, E. Georgiades, B. Wolde and Y.P. Pitsiladis	497	Mitochondrial DNA lineages of elite Ethiopian athletes

M. Ikuzawa, Ki. Kobayashi, S. Yasumasu and I. luchi	505	Expression of CCAAT/enhancer binding protein δ is closely associated with degeneration of surface mucous cells of larval stomach during the metamorphosis of <i>Xenopus laevis</i>
E.N. Miller, A.L. Rupp, M.K. Lindberg and T.J. Wiese	513	Tissue distribution of L-fucokinase in rodents
	I	Instructions to Authors
	Vol. 14	0B, No. 4
General papers		
E.S. Buda and T.H. Shafer	521	Expression of a serine proteinase homolog prophenoloxidase- activating factor from the blue crab, Callinectes sapidus
K.A. Johansen and K. Overturf	533	Sequence, conservation, and quantitative expression of rainbow trout $Myf5$
A. Kumagai and S. Hayashi	543	Participation of high-density lipoprotein in vitellogenesis in Japanese eel hepatocytes
S.J. Lee, K.S. Lee, S.R. Kim, Z.Z. Gui, Y.S. Kim, H.J. Yoon, I. Kim, P.D. Kang, H.D. Sohn and B.R. Jin	551	A novel cellulase gene from the mulberry longicorn beetle, Apriona germari: gene structure, expression, and enzymatic activity
V. Schein, A.L. Fernandes Chittó, R. Etges, L.C. Kucharski, A. van Wormhoudt and R.S.M. Da Silva	561	Effect of hyper or hypo-osmotic conditions on neutral amino acid uptake and oxidation in tissues of the crab <i>Chasmagnathus granulata</i>
K. Iio, M. Nakauchi, S. Yamagami, M. Tsutsumi, H. Hori, K. Naruse, H. Mitani, A. Shima and N. Suzuki	569	A novel membrane guanylyl cyclase expressed in medaka (Oryzias latipes) intestine
I. Kim, K.S. Lee, J.S. Hwang, M.Y. Ahn, J. Li H.D. Sohn and B.R. Jin	579	Molecular cloning and characterization of a peroxiredoxin gene from the mole cricket, <i>Gryllotalpa orientalis</i>
P.P. Magalhães, T.P. Paulino, G. Thedei Jr. and P. Ciancaglini	589	Kinetic characterization of P-type membrane ATPase from Streptococcus mutans
XJ. Zhu, ZM. Dai, J. Liu and WJ. Yang	599	Actin gene in prawn, Macrobrachium rosenbergii: characteristics and differential tissue expression during embryonic development
M. Watford and G. Wu	607	Glutamine metabolism in uricotelic species: variation in skeletal muscle glutamine synthetase, glutaminase, glutamine levels and rates of protein synthesis
N.M. Very, J.D. Kittilson, L.A. Norbeck and M.A. Sheridan	615	Isolation, characterization, and distribution of two cDNAs encoding for growth hormone receptor in rainbow trout (<i>Oncorhynchus mykiss</i>)
K. Grzyb and E.F. Skorkowski	629	Characterization of creatine kinase isoforms in herring (Chapea harengus) skeletal muscle
H. Bacca, A. Huvet, C. Fabioux, JY. Daniel, M. Delaporte, S. Pouvreau, A. Van Wormhoudt and J. Moal	635	Molecular cloning and seasonal expression of oyster glycogen phosphorylase and glycogen synthase genes

J.F. Leatherland, L. Lin and R. Renaud 647 Effect of glutamate and somatostatin-14 on basal and cAMPstimulated steroidogenesis by rainbow trout (Oncorhynchus mykiss) ovarian follicles, in vitro A.K. Dasmahapatra, X. Wang and M.L. Haasch Expression of Adh8 mRNA is developmentally regulated in Japanese medaka (Oryzias latipes) X. Wang, B.C. Ford, C.A. Praul and R.M. Leach Jr. 665 Characterization of the non-collagenous proteins in avian cortical and medullary bone Corrigendum C.S. Cobb, S.C. Frankling, M.C. Thorndyke, Corrigendum to "Angiotensin I-converting enzyme-like activity in F.B. Jensen, J.C. Rankin and J.A. Brown tissues from the Atlantic hagfish (Myxine glutinosa) and detection of immunoreactive plasma angiotensins" [Comp. Biochem. Physiol. 138B (2004) 357-364] Contents of Volume VII Subject Index XI Author Index XIII Instructions to Authors

